

Applicant: Friedrich BOECKING
Docket No. R.305744
Preliminary Amdt.

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 and 2. (Canceled)

3. (New) In a fuel injection apparatus having an injection valve including a control chamber, having a line that supplies highly pressurized fuel to the injection valve during operation, having an actuator and having a control valve that controls the pressure in the control chamber of the injection valve connected to the line and includes a movable valve member that the actuator is able to actuate via a hydraulic coupler, the hydraulic coupler having two pistons that cooperate with a coupler volume of the coupler, the seat of the movable valve member having an internal cross-sectional area f_3 equipped with means for filling the coupler volume with pressurized fuel via guidance gaps of the pistons, the improvement comprising a booster chamber at the ends of the pistons oriented toward the actuator, the pistons being guided one inside the other in parallel fashion; a filling chamber inside the outer piston and connected to the line; a rod mechanically coupling one of the pistons to the actuator, the rod having a cross-sectional area f_5 ; the other piston actuating the control valve by means of a second rod, the second rod having a cross-sectional area f_1 smaller than f_2 ; the direction of the opening movement of the movable valve member coinciding with the direction of fuel

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flowing out of the control chamber so that the control valve is at least partially force-balanced due to the pressure acting on the additional piston in the booster chamber.

4. (New) A fuel injection apparatus according to claim 3, further comprising an additional filling chamber at least in a region of the rod connecting the actuator to the hydraulic coupler and spaced apart from the coupler chamber situated the closest to the actuator, the additional filling chamber being connected to the line 5 and communicating with the coupler via a guidance gap of the rod.